

REMARKS

Claims 1-7 were pending in the application; claims 1-4 have been amended; and claims 5-7 have been cancelled. Accordingly, claims 1-4 are presented for reconsideration and further examination in view of the following remarks.

In the Office Action, the Examiner objected to the drawings because in Figure 2, the lead line for element 21 should point to the motor end cover and not the base wall 12; objected to the abstract of the disclosure because it contains the phrase “of the present invention” on line 5; rejected claims 1-7 under 35 U.S.C. § 102 (b) as being anticipated by U.S. Patent No. 3,303,995 to Boeckel; and rejected claims 1-3, 5, and 6 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,583,911 to Braun.

By this Response, Figure 2, the Abstract, and claims 1-4 have been amended and the prior art rejection is traversed. Support for the amendments to the claims can be found for example, on pages 3-4, paragraph [20] and in Figure 2-4. Arguments in support thereof are provided.

It is respectfully submitted that the above amendments introduce no new matter within the meaning of 35 U.S.C. § 132.

Objection to the Drawings

The Examiner objected to the drawings because the lead line for element 21 in Figure 2 does not point to the motor end cover, but instead points to the base wall 12.

In response, Applicant has amended Figure 2 by extending the lead line 21 up to the motor end cover. As corrected Figure 2 complies with 37 CFR 1.121(d), Applicant requests that the objection be withdrawn.

Objection to the Specification

The Examiner objected to the Abstract of the Disclosure because it contains the phrase “of the present invention” which should be deleted.

In response, Applicant has amended the Abstract to comply with the Examiner’s request. As the Abstract now complies with MPEP § 608.01(b), Applicant requests that the objection be withdrawn.

Rejections under 35 U.S.C. § 102

The Examiner rejected claims 1-7 as being anticipated by Boeckel; and rejected claims 1-3, 5, and 6 as being anticipated by Braun. Reconsideration and withdrawal of the rejections is respectfully requested.

The test for anticipation under section 102 is whether each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); MPEP §2131. The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP §2131. The elements must also be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990).

It is respectfully submitted that Boeckel and Braun fail to disclose each and every element as set forth in independent claim 1.

As discussed in the Background Art section of the instant application, a problem with current ventilation units is that condensate forms which must be channeled out of the unit to avoid liquid damage to the motor’s metal parts.

Boeckel discloses a fan motor cooling arrangement. According to the Examiner, Boeckel discloses a ventilation unit having an electric motor 24 with an output shaft 22 that is fitted with a fan 10 having a cup-shaped central body 12 and plural blades 16. The central body is defined by a base wall 13 and an annular wall 14, from whose outer face the blades extend. The base wall 13 of the central body (hub) is provided with a plurality of circumferentially spaced apart openings 26, which will inherently channel out any condensate formed inside the central body. Thereby communication is provided between the chamber defined by the central body and the upstream side of the air flow produced by the propeller blades 16. See column 2, lines 32-45.

With respect to amended claim 1, Boeckel fails to disclose a plurality of through windows formed only radially in the central body and spaced in a gap between two adjacent blades. In other words, Boeckel presents a different position of the windows (openings 26), i.e., they are placed on the faces of the end wall 13 perpendicular to the rotor shaft 22. In fact the solution disclosed by Boeckel shows different openings (vanes 28) on the end wall 13 which cooperate with other openings 40, 42, and 51 in Figure 2 formed in a disc 50 of the motor support 34. The openings are opposite to the end wall 13 and perpendicular to the rotor shaft 22. According to column 3, lines 10-25, the openings are for drawing air from the downstream, high pressure side of the fan, over the motor windings to the upstream end of the hub. Here the air is quickly removed under the action of the main air stream. Accordingly, none of the openings in Boeckel are formed only radially in a central body and located in a gap between two adjacent blades.

By contrast, amended claim 1 of the present application shows *a number of through windows (25) formed only radially in said central body (11), in a gap between two adjacent blades (15), to channel out, in use, by centrifugal force, any condensate formed inside said central body (11)*.

Therefore, the Boeckel reference fails to disclose each and every feature of amended independent claim 1.

It is respectfully requested that the rejection of claim 1 under 35 U.S.C. § 102(b) be withdrawn.

Moreover, as claims 2-4 depend from claim 1, Applicant submits that these claims are also allowable over Boeckel for at least similar reasons.

Braun discloses a multiple fluid pathway energy converter. According to the Examiner, Braun discloses a ventilation unit 12 having an electric motor 30 with an output shaft 28 that is fitted with a fan 14 having a cup-shaped central body (hub 16) and plural blades 18. The central body is defined by a base wall 20 and an annular wall 24, from whose outer face the blades extend. The base wall of the central body is provided with a plurality of orifices 22 and 26, which will inherently channel out any condensate formed inside the central body. Thereby providing communication with at least one edge orifice in the edge of the hub allowing fluid to flow through the hub, providing both axial fluid flow and hub fluid flow through the energy converter.

With respect to amended claim 1, Braun also fails to disclose a plurality of through windows formed only radially in the central body and spaced in a gap between two adjacent blades. Braun shows openings also on the base wall of the central body (or *hub 16*), communicating with the lateral openings of the central body. This configuration creates multiple fluid pathways through the central body (i.e., *hub fluid flow 38*) which, combined with the axial fluid flow conventionally produced by the blades, provides an increased flow to the energy converter. This added axial flow increases the performance of the electric motor. See column 3, lines 48-65. Accordingly, none of the orifices in Braun are formed only radially in a central body and located in a gap between two adjacent blades.

By contrast, amended claim 1 of the present application shows *a number of through windows (25) formed only radially in said central body (11), in a gap between two adjacent blades (15), to channel out, in use, by centrifugal force, any condensate formed inside said central body (11)*.

Therefore, the Braun reference fails to disclose each and every feature of amended independent claim 1.

It is respectfully requested that the rejection of claim 1 under 35 U.S.C. § 102(b) be withdrawn.

Moreover, as claims 2-4 depend from claim 1, Applicant submits that these claims are also allowable over Braun for at least similar reasons.

Independent claim 1 is also inventive over the prior art since neither Boeckel nor Braun teach or suggest channeling condensate out of the central body or providing radial windows for this purpose, by the use of centrifugal force, as described in amended claim 1 of the present application. Indeed, the technical problem faced and solved by the present application is channeling out, by centrifugal force, the condensate, which is formed inside the central body. For this reason it is essential to provide the central body only with radial windows, which are placed in the annular wall, so to facilitate a more effective outward channeling of the condensate.

Another important feature is to have windows spaced in the gap between two adjacent blades, so the condensate does not form on the blades, interfering with them.

It is to be noted that it is counter-productive to have windows placed on the base wall since if the ventilation unit is installed outside the vehicle, it is protected against infiltration by rainwater thus safeguarding electric motor against damage by water, so increasing the working life of electric motor itself, as discussed on page 4 lines 8-12 of the present application.

Further, Applicant respectfully submits that both the problem faced by Boeckel and the one faced by Braun are quite different from the one solved by the present application. In fact, Boeckel wants to provide a new fan, compact in size, which presents highly efficient means for cooling the fan motor. See column 1, lines 9-13. As described above, for this purpose Boeckel provides the central body of a plurality of axial openings, so to draw air from the downstream side of the fan, assembling it through the interior of the hub chamber (or central body) and forcing it outwardly through the openings.

Braun, instead, wants to increase either or both the pressure pumping capability and the volumetric flow while, at the same time, reducing the electric energy consumption of the electric motor. See column 1, lines 17-30. This purpose is achieved with the combination of two flows, one passing through the blades, the other one flowing through the interior channel created in the hub, as previously described.

Applicant submits that the references, taken alone or in combination, could not lead to the solution achieved by the features as recited in claim 1.

Therefore, in view of the foregoing, reconsideration and withdrawal of the above rejections is respectfully requested.

It is also submitted that the rejection of dependent claims 2-4 should be withdrawn *inter alia*, as they are dependent on their respective independent claim, and for at least similar reasons discussed in detail above with reference to the independent claim.

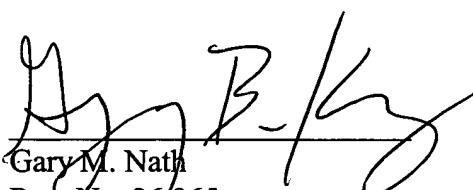
CONCLUSION

In light of the foregoing, Applicant submits that the application is now in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicant respectfully requests that the Examiner contact the undersigned attorney if it is believed that such contact will expedite the prosecution of the application. Favorable action with an early allowance of the claims is earnestly solicited.

Respectfully submitted,
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AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to Figure 2. This sheet, which includes Figure 2, replaces the original sheet including Figure 2. Figure 2 was objected to under 37 CFR 1.121(d) because the lead line for 21 should point to the motor end cover and not the base wall 12. For overcoming the drawings objection, Figure 2 has been accordingly amended, by extending lead line 21 up to the motor end cover.

Attachment: Replacement Sheet